

AMENDMENT

IN THE CLAIM

Please amend the claims as follows.

Claim 1 (Currently Amended): A computer readable medium containing a database accelerator, comprising:

a primary system that holds data records having data items including primary keys, primary blocks that store the data records in the order of their primary keys, and a location table that contains in a contiguous region location table entries containing the addresses of the primary blocks, said primary system transmits modification information of a location of any modification in the location table and a content of modification to any accelerator connected to the primary system when any modification occurs to the location table due to data addition, update, and deletion causing a data modification within the block;

~~a frond location table having frond location table entries in a contiguous region indicating the blocks identical to the location table entries of each primary block; and~~

~~an accelerator system the frond location table entries are updated synchronously or asynchronously according to the updated information issued by the primary system when the location table entry of the primary blocks is updated~~ that has a frond location table holding frond location table entries in a contiguous region indicating the blocks identical to the location table entries of each primary block,

said accelerator system has a communication mechanism receiving modification information from the primary system when any modification occurs to the

location table due to data addition, update, and deletion causing data modification within the block while transmitting information for completing the application of the modification information to the primary system when the modification is completed and a modification information application mechanism performing necessary updating on the basis of modification information transmitted from the primary system, and retrieval by means of the primary key on said accelerator system is such that a binary search is performed using the frond location table of the accelerator system to retrieve the frond location table entries with a target key value to determine an object block and that retrieval relative to the record within the block is performed relative to the primary block or overflow block in the primary system.

Claim 2-7 (Canceled)

Claim 8 (Currently Amended): A computer readable medium containing a database accelerator, comprising:

a primary system that holds data having data items including primary keys and alternate keys, primary blocks that store the data records in the order of their primary keys, alternate-key blocks that stores the alternate-key entries made up of alternate keys and primary keys in the alternate-key value order, and alternate-key location table that contains the alternate-key location table entry in a contiguous region, said primary system transmits modification information of a location of any modification in the alternate-key location table such as alternate-key location table entry number and a content of modification to any accelerator connected to the primary system when the alternate-key location table is modified as the alternate-key entry within the alternate-key block is modified in the case that alternate-key modification occurs due to data

addition, update, and deletion causing a data modification within the block; and

an accelerator system that holds a frond alternate-key location table that contains the frond alternate-key location table entries indicating alternate-key location table entries of each alternate-key block and the identical alternate-key block in the contiguous region, where said alternate-key frond location table entries, when the alternate-key location table entry of each alternate-key block is updated, is synchronously or asynchronously updated based on the newly updated information sent from the primary system and has a communication mechanism receiving modification information from the primary system when any modification occurs to the alternate-key location table due to data addition, update, and deletion causing data modification within the alternate-key block while transmitting information for completing the application of the modification information to the primary system when the modification is completed and a modification information application mechanism performing necessary updating on the basis of modification information transmitted from the primary system, and retrieval by means of the alternate-key on said accelerator system is such that a binary search is performed using the frond alternate-key location table of the accelerator system to retrieve the frond alternate-key location table entries with a target key value to determine an object alternate-key block and that retrieval relative to the record within the alternate-key block is performed relative to the alternate-key block in the primary system.

Claims 9-12 (Canceled)